UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

IN THE MATTER OF:	)	
	)	
DuPont Chemical Solutions Enterprise North Bend, Ohio	)	**NOTICE AND FINDING OF VIOLATION**
	)	EPA-5-03-OH-08
Proceedings Pursuant to Section 113(a)(1) and (a)(3) of the Clean Air Act, 42 U.S.C. § 7413(a)(1) and (a)(3)	)	

NOTICE AND FINDING OF VIOLATION

The Administrator of the United States Environmental Protection Agency (U.S. EPA) is issuing this Notice of Violation and Finding of Violation under Section 113(a)(1) and (a)(3) of the Clean Air Act (CAA), 42 U.S.C. § 7413(a)(1) and (a)(3). U.S. EPA finds that DuPont Chemical Solutions is violating Part C of the CAA and the Ohio State Implementation Plan (SIP), and Sections 502 and 503 of the CAA, 42 U.S.C. § 7661a-7661b, as follows:

Statutory and Regulatory Background

National Standards of Performance for Sulfuric Acid Plants

1. Section 111(e) of the Act, 42 U.S.C. § 7411(e), provides that after the effective date of a standard of performance promulgated under this section, it is unlawful for any owner or operator of any new source to operate such source in violation of that standard.

2. Section 111(a)(2) of the Act, 42 U.S.C. § 7411(a)(2), defines the term "new source" as any stationary source, the construction or modification of which is commenced after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance applicable to such source.

3. Construction or modification is "commenced" when an owner or operator of a stationary source undertakes "a continuous program of construction or modification," or enters into a "contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or

modification." 40 C.F.R. § 60.2.

4. Section 111(a)(4) of the Act, 42 U.S.C. § 7411(a)(4), defines "modification," in pertinent part, as "any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by such source . . ." This definition requires that the physical or operational change result in an increase in emission of any pollutant for which a standard applies. 40 C.F.R. §60.14(a). A net emission increase is calculated by comparing the hourly emission rate, at maximum physical capacity, before and after the physical or operational change.

5. A modified stationary source must comply with all applicable standards within 180 days from the completion of any physical or operational change. 40 C.F.R. § 60.14(g).

6. 40 C.F.R. §60.15(a) states that upon reconstruction, an existing facility becomes a new source or affected facility irrespective of any change in the emission rate.

7. 40 C.F.R. §60.15(b) defines "reconstruction," as "the replacement of components of an existing facility to such an extent that: (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and (2) It is technologically and economically feasible to meet the applicable standards in this part."

8. 40 C.F.R. §60.15(c) defines "fixed capital cost" as the capital needed to provide all the depreciable components.

9. The owner or operator of an existing facility who proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, shall notify the Administrator of the proposed replacements, as required under 40 C.F.R. § 60.15(d).

10. 40 C.F.R. §60.7 requires, in pertinent part, that any owner or operator subject to the provisions of Part 60 provide written notification of the date of construction, the date of start up, and the date of any physical or operational change to a NSPS affected facility.

11. U.S. EPA proposed the NSPS for sulfuric acid plants on August 17, 1971. 36 Fed. Reg. 15704. U.S. EPA promulgated

the NSPS for sulfuric acid plants, Subpart H, on December 23, 1971. 36 Fed. Reg. 24877.

12. 40 C.F.R. § 60.81 defines a sulfuric acid production unit to mean any facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid (a.k.a. spent sulfuric acid), hydrogen sulfide, organic sulfides and mercaptans, and acid sludge, but does not include facilities where conversion to sulfuric acid is utilized primarily as a means of preventing emissions of sulfur dioxide or other sulfur compounds.

13. The Sulfuric Acid Plant NSPS, Subpart H, at 40 C.F.R. § 60.82(a), provides that the owner or operator of any sulfuric acid production unit shall not cause to be discharged into the atmosphere from any affected facility any gases which contain sulfur dioxide in excess of 2 kilograms per metric ton of acid produced (kg/ton) (4 pounds per ton of acid produced (lbs/ton)).

Prevention of Significant Deterioration

14. On June 19, 1978, U.S. EPA promulgated the prevention of significant deterioration (PSD) of air quality standards pursuant to Subtitle I, Part C of the Act. The PSD regulations were revised on August 1, 1980 (45 Fed. Reg. 52676). These regulations are codified at 40 C.F.R. § 52.21 (43 Fed. Reg. 26403).

15. Part C of Title I of the Act and the PSD regulations implementing Part C, at 40 C.F.R. § 52.21, prohibit a major stationary source from constructing a modification without first obtaining a PSD permit, if the modification is major in that it will result in a significant net increase in emissions of a regulated pollutant, and if the source is located in an area which has achieved the National Ambient Air Quality Standards (NAAQS) for that pollutant. Part C and its implementing regulations further require that a source subject to PSD regulations install Best Available Control technology (BACT). 40 C.F.R. § 52.21(j).

16. 40 C.F.R. § 52.21(b)(1)(i)(a) defines a "major stationary source" as any stationary source within one of 28 source categories which emits, or has the potential to emit, 100 tons per year or more of any air pollutant subject to regulation under the Act. Sulfuric acid plants are included among the 28 source categories.

17. 40 CFR § 52.21(b)(2)(i) defines a "major modification" as any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act.

18. 40 C.F.R. § 52.21(b)(3)(i) defines "net emissions increase" as "the amount by which the sum of the following exceeds zero:
(a) Any increase in actual emissions from a particular physical change or change in method of operation at a stationary source; and
(b) Any other increases and decreases in actual emissions at the source that are contemporaneous with the particular change and are otherwise creditable."

19. In reference to sulfur dioxide (SO_2), significant net emissions increase means an emissions rate of 40 tons or more per year of SO_2. 40 C.F.R. § 52.21(b)(23)(i).

20. An applicant for a permit to modify a stationary source is required to provide all relevant information to allow the permitting authority to perform an analysis or make the determination required in order to issue the appropriate permit. 40 C.F.R. § 52.21(n).

21. The PSD regulations were incorporated into the Ohio SIP on August 7, 1980. 40 C.F.R. § 52.738 (45 Fed. Reg. 52741, August 7, 1980, as amended at 46 Fed. Reg. 9584, January 29, 1981).

22. On October 10, 2001, Ohio received approval for a SIP approved PSD program (66 Fed. Reg. 51570, October 10, 2001). Ohio's PSD program is located in Ohio Administrative Code (OAC) 3745-31-01 through 3745-31-20.

Requirements for SIP Permits to Install

23. U.S. EPA originally approved OAC 3745-31 as part of the federally enforceable Ohio State Implementation Plan on October 31, 1980 (45 Fed. Reg. 72119). This approval included OAC Rule 3745-31-02. OAC Rule 3745-31-02(A) states that no person shall cause, permit, or allow the installation of a new source of air pollutants without first obtaining a permit to install from the director.

Requirements for SIP Permits to Operate

24. U.S. EPA approved OAC Chapter 3745-35 as part of the federally enforceable Ohio State Implementation Plan on June 10, 1982 (47 Fed. Reg. 25144). This approval included OAC Rule 3745-35-02. OAC Rule 3745-35-02(A) states that no person may cause, permit, or allow the operation or other use of any air contaminant source without applying for and obtaining a permit to operate from the Ohio Environmental Protection Agency in accordance with the requirements of this rule.

Requirements for Title V Operating Permits

25. Section 502(a) of the CAA, 42 U.S.C. § 7661a(a), provides that no source may operate without a Title V permit after the effective date of any permit program approved or promulgated under Title V of the CAA.

26. Section 503(d) of the CAA, 42 U.S.C. § 7661b(d), sets forth the requirement to timely submit an application for a permit, including required information.

27. 40 C.F.R. § 70.5(a) provides that an owner or operator shall submit a timely and complete permit application in accordance with Part 70 requirements.

28. 40 C.F.R. § 70.7(b) provides that no source subject to Part 70 requirements may operate without a permit as specified in the CAA.

29. U.S. EPA promulgated final approval of the Ohio Title V program on October 1, 1995, and the program became effective on that date.

DuPont's Facility

28. DuPont owns and operates a sulfuric acid plant at 11215 Brower Road, North Bend, Ohio.

29. DuPont's facility meets the definition of "sulfuric acid production unit" in 40 C.F.R. § 60.81.

30. Between 1985 and 1996, DuPont conducted a life extension project at its sulfuric acid plant which extended its useful life.

31. The fixed capital costs of the new components installed

during the life extension project exceeded 50% of what it would have cost to construct a comparable entirely new facility.

32. Around 1986, DuPont replaced the absorbing tower and the absorbing tower cooler at the sulfuric acid plant. These component replacements increased the production capacity of the sulfuric acid plant.

33. As a result of this capacity increase, the emission rate of SO_2 to the atmosphere, expressed in kg/hr, increased.

34. Between June 12 and 22, 1989, DuPont increased the size of the steam turbine, replaced the converter with one of a more modern design, replaced the economizer and increased well water cooling capacity at the sulfuric acid plant. These component replacements increased the production capacity of the sulfuric acid plant.

35. As a result of this capacity increase, the emission rate of SO_2 to the atmosphere, expressed in kg/hr, increased.

36. Emissions of SO_2 from the sulfuric acid plant, as reported by DuPont in annual emission reports, increased from 1,159 tons per year in 1983 to 1,612 tons per year in 1987. The emissions increased again in 1992 to 2,182 tons per year. This demonstrates increases in emissions greater than 40 tons of SO_2 per year.

37. DuPont's facility meets the definition of major stationary source in 40 C.F.R. § 52.21(b)(1)(i)(a), because it is a sulfuric acid plant and it has the potential to emit in excess of 100 tons of SO_2 per year.

38. DuPont's facility was shown to be emitting 24.99 lbs of SO_2 per ton of sulfuric acid produced during a March 25 and 26, 2003 emissions test.

39. DuPont's facility is subject to the PSD regulations in the Ohio SIP, and the requirements to obtain PSD permits to install, and permits to operate incorporating such PSD requirements, as required by the CAA and the Ohio SIP rules.

40. DuPont's facility is subject to Title V of the CAA (Sections 502 and 503) because it is a major source (as defined in Section 501(2) of the CAA) with the potential to emit more than 100 tons of SO_2 per year.

41. The life extension project conducted at DuPont's facility between 1985 and 1996 triggered NSPS "reconstruction" provisions in 40 C.F.R. §60.15. As a result, DuPont's facility is subject to 40 C.F.R. §§60.15 and 60.82.

42. The replacement of the absorbing tower and absorbing tower cooler triggered NSPS "modification" provisions in 40 C.F.R. §60.14. As a result, DuPont's facility is subject to 40 C.F.R. §60.82.

43. The replacement of the steam turbine, economizer, and converter, and the increase in well capacity triggered NSPS "modification" provisions in 40 C.F.R. §60.14. As a result, DuPont's facility is subject to 40 C.F.R. §60.82.

Violations

44. DuPont failed to notify U.S. EPA of the sulfuric acid plant life extension project, resulting in reconstruction of its facility, in violation of 40 C.F.R. §§60.7 and 60.15(d).

45. DuPont failed to notify U.S. EPA of the absorbing tower and absorbing tower cooler replacements, resulting in modification of its facility, in violation of 40 C.F.R. §60.7.

46. DuPont failed to notify U.S. EPA of the steam turbine, economizer, and converter replacements and the well capacity increase, resulting in modification of its facility, in violation of 40 C.F.R. §60.7.

47. DuPont has emitted, and continues to emit into the atmosphere, SO_2 in excess of 2 kilograms per metric ton of acid produced (kg/ton) (4 lbs/ton), in violation of 40 C.F.R. §60.82(a).

48. The replacement of the absorbing tower and absorbing tower cooler around 1986 resulted in increased SO_2 emissions above the significance level. The replacement of the steam turbine, economizer and converter and the increase in well capacity around 1989 resulted in increased SO_2 emissions above the significance level. DuPont never applied for a PSD permit or underwent PSD review, including applying BACT, prior to these increases, as required by the CAA. As such, DuPont is in violation the Ohio SIP rule and 40 C.F.R. § 52.21(i).

49. DuPont failed to provide the permitting authorities with all

relevant information necessary for the permitting authorities to perform an analysis of whether DuPont's proposed absorbing tower and absorbing tower cooler replacement project and the steam turbine, economizer, converter and well capacity project were "major modifications," in violation of the Ohio SIP rules and 40 C.F.R. § 52.21(r).

50. DuPont has operated and continues to operate its facility without obtaining a PSD permit to install for the absorbing tower and absorbing tower cooler replacement and the steam turbine, economizer, converter, and well capacity project, violating the Ohio SIP rules and 40 C.F.R. § 52.21(i).

51. DuPont has operated and continues to operate its facility without an permit to operate which incorporates PSD requirements, violating the Ohio SIP rule OAC 3745-35-02(A).

52. The violation noted in paragraph 51 exists from at least the date of start of construction and continues until the appropriate permits are obtained and the necessary pollution control equipment is installed and operated.

53. DuPont has failed to submit a timely and complete Title V permit application with information pertaining to the 1986 replacement of the absorbing tower and absorbing tower cooler, the 1989 steam turbine, economizer, converter, and well capacity project, and the 1985 through 1996 life extension project, violating Section 503 of the CAA and the regulations at 40 C.F.R. §§ 70.5(a) and 70.7(b), thereby violating Section 502 of the CAA.

54. The violations noted in paragraph 53 exist from April 12, 1984, and continue until DuPont submits a complete Title V permit application.

5/23/03
Date

Cheryl Newton, Acting Director
Air and Radiation Division

CERTIFICATE OF MAILING

I, Shanee Rucker, certify that I sent a Notice of Violation/Finding of Violation, No. EPA-5-03-OH-08, by Certified Mail, Return Receipt Requested, to:

Thomas J. Burke
Plant Manager, Fort Hill Plant
DuPont Chemical Solutions Enterprise
11215 Brower Road
North Bend, Ohio 45052

I also certify that I sent copies of the Notice of Violation/Finding of Violation by first class mail to:

Robert Hodanbosi, Chief
Division of Air Pollution Control
Ohio Environmental Protection Agency
Lazarus Government Center
P.O. 1049
Columbus, Ohio 43216-1049

and

Cory Chadwick, Director
Department of Environmental Services
Air Quality Programs
250 William Howard Taft Road
Cincinnati, Ohio 45219-2660

on the 27th day of May, 2003.

Loretta Rucker

Shanee Rucker, Secretary
AECAS, (MI/WI)
(312) 886-6086

CERTIFIED MAIL RECEIPT NUMBER: 7001 0320 0006 1565 0231